

APPENDIX C

OPERATIONS AND TECHNIQUES

This appendix presents techniques that may be employed when conducting the most common types of tactical COIN operations. Table C-1 presents some of the most common operations and techniques that a COIN force employs. Large-scale operations are more suited to the later stages of an insurgency while small-unit tactics are more suited to the whole spectrum. (See FMs 7-7, 7-7J, 7-8, 7-10, 7-20, 7-30, 71-1, 71-2, and 71-3.)

Section I. OPERATIONS

With minor changes, some operations discussed in FMs 7-10, 7-20, 71-1, and 71-2 can be used for counterinsurgency warfare and COIN. These operations include raids, movements to contact, hasty attacks, deliberate attacks, reconnaissance in force, exploitations, and pursuits.

C-1. ENCIRCLEMENT

Encirclement is designed to cut off all ground routes for escape and reinforcement of the encircled insurgent force. It offers the best possibility for fixing insurgent forces in position and for achieving decisive results. Battalion and larger units may conduct encirclements.

a. The company and smaller units normally lack enough men and command and control ability to conduct encirclements (except against small, concentrated insurgent forces). All units of the brigade can participate in encirclements conducted by a larger force.

b. Planning, preparation, and execution are aimed at complete encirclement of the insurgent force. Maximum security and surprise can be gained by completing the encirclement during darkness.

c. Encircling movements are executed rapidly. Use of air assault and airborne troops can contribute speed and surprise to the early phases of an encirclement. Positions are occupied at the same

time to block an escape. If occupation at the same time is not possible, escape routes most likely to be used are covered first. Initial occupation is the most critical period of an encirclement. If large insurgent formations become aware of the encirclement, they may react immediately to probe for gaps or to attack weak points to force a gap.

d. Units occupying the encircling positions provide strong combat patrols well to their front to give early warning of attempted breakouts and to block escape routes. Mobile reserves are positioned for immediate movement to counter any threat of a breakout, and to reinforce difficult areas such as deep ravines or areas containing cave or tunnel complexes.

e. Indirect fire support can cloak an impending encirclement by gaining and maintaining the insurgent's attention while encircling units move into position. Fires, including field artillery, should be planned in detail to support the encirclement after it is discovered.

OPERATION	SIZE	REQUIRED * ≥ INTELL	SUIT PHASE	** MODE	PURPOSE	TARGETS
ROADBLOCKS	≥ PLT	1	I, II, III	1 & 2	POPULATION & RESERVE CONTROL	INDIVIDUALS CONTROL
CHECKPOINTS	≥ PLT	1	I, II, III	1 & 2	POPULATION & RESERVE CONTROL	INDIVIDUALS CONTROL
CORDON & SEARCH	≥ CO	2	II, III	2	POPULATION & RESERVE CONTROL	AREAS (URBAN) LOG PERS INFO
RAID	≥ PLT	3	II, III	1	SECURE INFORMATION DESTROY ENEMY LIBERATE PERSONNEL	SPECIFIC TARGETS
PATROLLING	≥ PLT	1 2	I, II, III	1 & 2	RECONNOITER COMBAT DENIAL OF AREAS	AREA UNITS FACILITIES
AMBUSH	≥ CO	1 2	I, II, III	1 & 2	HARASS DESTROY INTERDICTION MOVEMENT	INTERDICTION OF MOVEMENT
MOVEMENT TO CONTACT	BN	2 3	III	1	RECONNOITER CLEAR DRIVE	ENEMY UNITS
RECONNAISSANCE IN FORCE	≥ BN	2 3	III	1	RECONNOITER TEST	ENEMY STRENGTH, DISPOSITION, AND LOCATIONS
HASTY ATTACK	CO	1 2	II, III	1 & 2	DESTROY ENEMY	ENEMY UNITS
DELIBERATE ATTACK	CO	2 3	II, III	1	DESTROY ENEMY	ENEMY UNITS FACILITIES
EXPLOITATION	BN	3	III	1	DISRUPT ENEMY FACILITIES	ENEMY FACILITIES
PURSUIT	BN	3	III	1	DESTROY WITHDRAWING FORCES	ENEMY UNITS
OPERATIONAL SUPPORT BASE	BN	2 3	II, III	2	SUPPORT OP LIMITED LOG BASE	ESTABLISH PRESENCE LIMIT ENEMY MOBILITY
PATROL BASES	≥ CO	2 3	II, III	2	COMMAND AND CONTROL RECONNAISSANCE SITES	LIMITED TO DEFENSE
IMMEDIATE ACTION DRILLS	≥ BN	1 2	I, II, III	1 & 2	DESTRUCTION DEFENSE	ENEMY UNITS
ENCIRCLEMENT	≥ BN	3	II, III	1	DESTRUCTION	LARGER UNITS BASE COMPLEXES
LEGEND: * 1. NO INTELLIGENCE 2. LIMITED INTELLIGENCE 3. COMPREHENSIVE ** 1. OFFENSIVE 2. DEFENSIVE						

Table C-1. Comparison of operations.

C-2. REDUCTION OF ENCIRCLEMENT

Following the initial encirclement, the capture or destruction of the insurgent force is methodical and thorough. Fire and maneuver are used together in a controlled contraction of the encirclement. As the line of entrenchment is contracted, depending on

terrain, units may be removed from the line and added to the reserve. Against small insurgent forces, the entire encircled area may be cleared by contraction; however, against larger insurgent forces, some action other than further contraction will be required (Figure C-1).

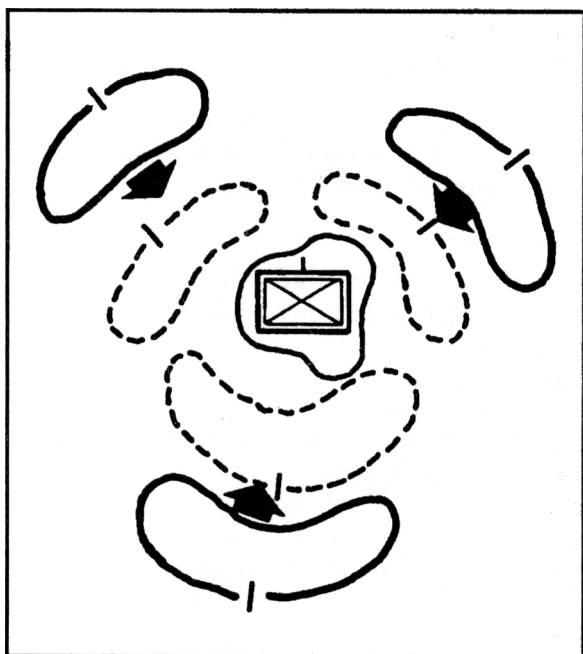


Figure C-1. Reduction of encirclement.

C-3. HAMMER AND ANVIL METHOD

The hammer and anvil technique is employed after some degree of reduction. It involves employing a blocking force on one or more sides of the perimeter. This is performed while part of the encirclement forces the insurgents against the blocking force by offensive action. Either element can accomplish the actual destruction, but it is usually accomplished by the attacking element. This technique is most effective when the blocking force is located on, or to the rear of, a natural terrain obstacle. In this method, one or more units in the encirclement remain stationary while the others drive the insurgent unit against it (Figure C-2). This technique can be employed during the reduction of an encirclement or whenever the tactical situation permits. Airborne or air assault forces can be employed on favorable terrain deep in the enemy rear. This technique is useful in destroying insurgents, because they prefer to fight only when conditions are favorable to them.

C-4. WEDGE METHOD

This method is used during the reduction of an encirclement. A unit is used to divide the enemy while the encircling elements remain in place. After the insurgent force has been

divided into smaller elements, either reduction of encirclement or the hammer and anvil method is used (Figure C-3).

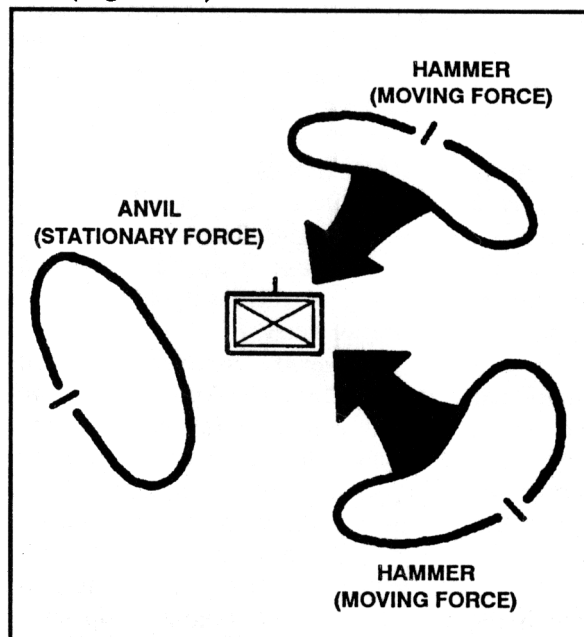


Figure C-2. Hammer and anvil method.

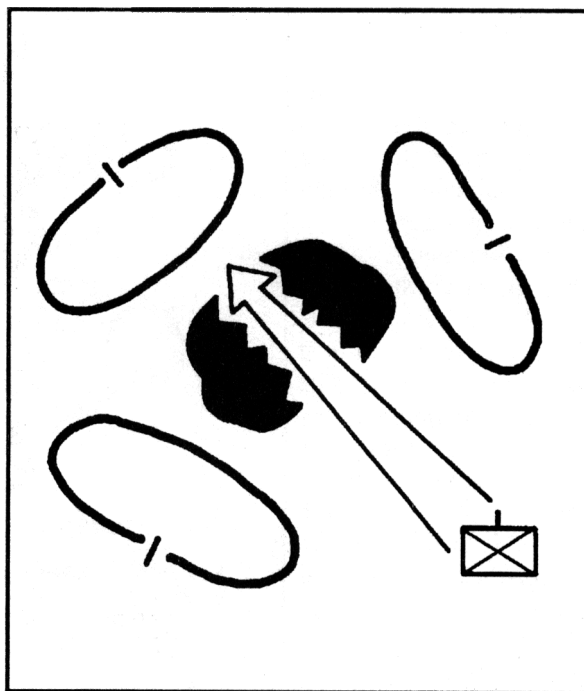


Figure C-3. Wedge method.

Section II.

CIVIL DISTURBANCES AND SEARCHES

While it is preferred to have host country forces control civil disturbances, US forces may be forced by circumstances to conduct them and be involved in search operations. (The type of civil disturbance provides the needed counteraction guidelines; for detailed information refer to FM 19-15.)

C-5. SEARCH TECHNIQUE

Searches are commonly used in population and resources control operations. They include use of checkpoints and roadblocks to control traffic and to reduce the ability of the insurgent to move personnel and materiel freely.

a. **Special Equipment Required.** Special equipment is required for a checkpoint to achieve the best results. Portable signs in the native language and in English should be available. Signs should denote the speed limit of approach, vehicle search area, vehicle parking areas, male and female search areas, and dismount point. Lighting is needed for the search area at night. Communication is required between the various troop units supporting the checkpoint operation. Barbed-wire obstacles across the road and around the search area should be provided. Troops must have adequate firepower to withstand an attack or to halt a vehicle attempting to flee or crash through the checkpoint.

b. **Method.** The checkpoint is established by placing two parallel obstacles (each with a gap) across the road. The distance (in meters) between obstacles depends on the amount of traffic that is held in the search area. The blocked section of road can be used as the search area. If possible, there should be a place (adjacent to the

road) where large vehicles can be searched without delaying the flow of other traffic (which can be dealt with more quickly). Areas are required for searching female insurgents and detaining persons for further interrogation. If possible, the personnel manning a checkpoint should include a member of the civil police, an interpreter, and a trained female searcher. When searching a vehicle, all occupants get out and stand clear of the vehicle. The driver should observe the search of his vehicle. The searcher is always covered by an assistant. When searching, politeness and consideration are shown at all times. The occupants of the vehicle can be searched at the same time, if enough searchers are available (Figure C-4).

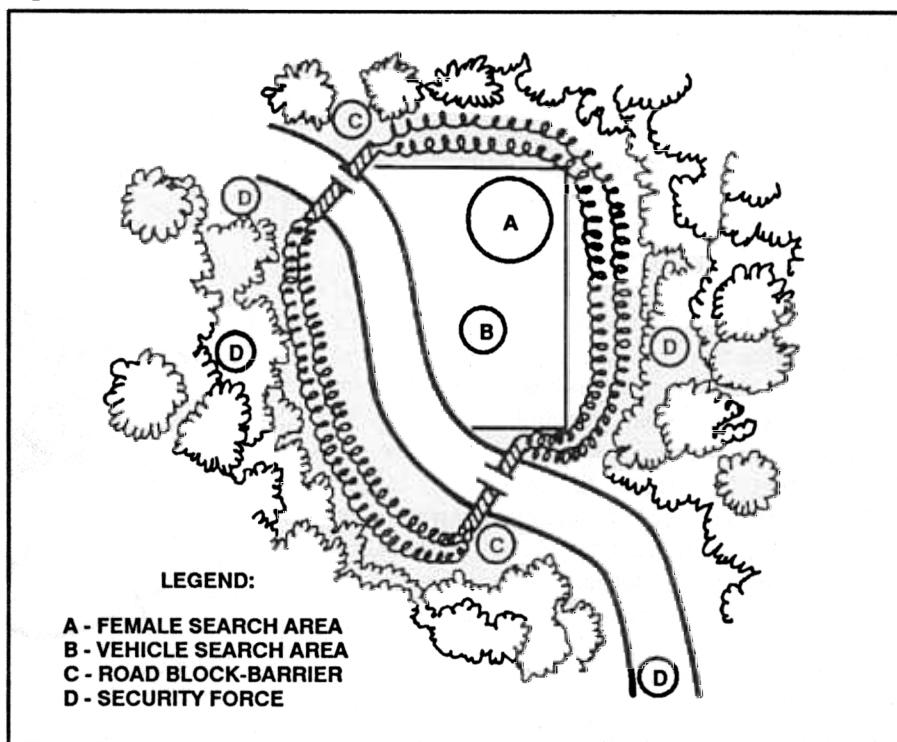


Figure C-4. Area search technique.

C-6. SEARCH OF INDIVIDUALS

The searching of individuals involves the following methods.

a. **Frisk Search.** The frisk is a quick search of an individual for weapons, evidence, or contraband. It should be conducted in the presence of an assistant and a witness. In conducting the frisk, the searcher stands behind the insurgent. The searcher's assistant takes a position from which he can cover the insurgent with his weapon. The insurgent is required to raise his arms. The searcher then slides his hands over the individual's entire body, crushing the clothing to locate concealed objects.

b. **Wall Search.** Based on the principle of rendering the insurgent harmless by placing him in a strained, awkward position, the wall search affords the searcher some safety. It is quite useful when two searchers must search several insurgents. Any upright surface can be used such as a wall, vehicle, or tree.

(1) *Position of insurgent.* The insurgent must face the wall (or other object) and lean against it, supporting himself with his upraised hands placed far apart and fingers spread. His feet are placed well apart, turned out, parallel to the wall, and as far from the wall as possible. His head is kept down.

(2) *Position of searcher's assistant.* The searcher's assistant stands on the opposite of the insurgent (from the searcher) and to the rear. He covers the insurgent with his weapon. When the searcher moves from his original position to the opposite side of the insurgent, the assistant also changes position. The searcher walks around his assistant during this change to avoid coming between his assistant and the insurgent.

(3) *Position of searcher.* The searcher approaches the insurgent from the right side. The searcher's weapon must not be in such a position that the insurgent can grab it. When searching from the right side, the searcher places his right foot in front of the insurgent's right foot and makes and maintains ankle-to-ankle contact. From this position, if the insurgent offers resistance, the insurgent's right foot can be pushed back from under him. When searching from the left side of the insurgent, the searcher places his left foot in front of the insurgent's left foot and again maintains ankle-to-ankle contact.

(4) *Initial position.* In taking his initial position, the searcher should be alert to prevent the insurgent from suddenly trying to disarm or injure him. The searcher first searches the insurgent's headgear. The searcher then checks the insurgent's hands, arms, right side of the body, and right leg, in sequence. The searcher repeats the procedure in searching the insurgent's left side. He crushes the insurgent's clothing between his fingers—he does not merely pat it. He pays close attention to armpits, back, waist, legs, and tops of boots or shoes. Any item found that is not considered a weapon or evidence is replaced in the insurgent's pocket. If the insurgent resists or attempts escape and must be thrown down before completing the search, the search is restarted from the beginning.

(5) *Switch of multiple insurgents.* When two or more insurgents are to be searched, they must assume a position against the same wall or object but far enough apart so that they cannot reach each other. The searcher's assistant takes his position a few paces to the rear of the line with his weapon ready. The search is started with the insurgent on the right of the line. On completing the search of one insurgent, the searcher moves the insurgent to the left of the line to resume his position against the wall. Thus, in approaching and searching the next insurgent, the searcher is not between his assistant and a insurgent.

c. **Strip Search.** This type of search is used when the individual is suspected of being an insurgent leader or important messenger. The search should be conducted in an enclosed space such as a room or tent. The searching technique can be varied. One method is to use two unarmed searchers while an assistant, who is armed, stands guard. The insurgent's clothing and shoes are removed and searched carefully. A search is then made of his person to include his mouth, nose, ears, hair, armpits, crotch, and other areas of possible concealment.

d. **Search of Females.** The insurgent force makes full use of females for all types of tasks where search may be a threat. COIN forces must fully employ female searchers. If female searchers cannot be provided, a doctor or aidman should be used for searching female insurgents. The search of females is an extremely sensitive matter. When male soldiers must search females, every possible

measure must be taken to prevent the slightest inference of sexual molestation or assault.

C-7. SEARCH OF POPULATED AREAS

Four fundamentals are employed when conducting a search.

a. **Approach.** On some operations, mounted movement may be possible directly into the area to be searched. However, the situation may dictate dismounted movement. Emphasis is on rapid and coordinated entrance into the area.

b. **Surrounding the Area.** During darkness, troops approach silently by as many different routes as possible. At first daylight, the area can be occupied by a chain of OPs with gaps covered by patrols. Normally, a large area cannot be completely surrounded for a long time due to the number of troops required. If needed, troops dig in, take advantage of natural cover, and use barbed wire to help maintain their line.

c. **Reserves.** If there is a chance that hostile elements from outside the area could interfere, measures are taken to prevent them from joining the inhabitants of the area under search. Air observers can assist by detecting and giving early warning of any large-scale movement toward the occupied area.

d. **Search Parties.** The officer in command of the operation informs the inhabitants that the area is to be searched, that a house curfew is in force, and that all inhabitants must remain indoors. Or, he may require the inhabitants to gather at a central point and then have the search party move in and begin the search. Search parties are usually composed of search teams.

(1) When a decision is made to gather inhabitants at a central point, the head of the house should accompany the search party when his house is searched. If this is not done, he can deny knowledge of anything incriminating that is found, or he can accuse the troops of theft and looting. In small searches, it may be best to ask the head of each household to sign a certificate stating that nothing has been illegally removed. However, in a large search this may be impractical. To avoid accusations of theft, witnesses should be present during the search. A prominent member of the community should accompany each search team.

(2) Buildings should be searched from top to bottom. Mine detectors are used to search for arms and ammunition. Every effort is made to avoid needless damage. Each house or building searched is marked with a coded designation. This same designation can be used to list occupants who must be accounted for in subsequent searches. The designation helps ensure that no building is overlooked in the search.

(3) If a house is vacant or if an occupant refuses entry, an entry using force may be required. If a house containing property is searched while its occupants are away, it should be secured to prevent looting. Before troops depart, the commander should arrange to protect such houses with the community until the occupants return.

e. **Search Teams.** Special teams can be formed for search operations. In searching small areas (a few buildings), small units can conduct a search without special teams for each function. Search teams may require—

- Reconnaissance.
- Physical or visual search.
- Control.
- Prisoner detection.
- Riot control agents, flame weapons, and demolitions.
- Documentation.

and may be augmented by—

- Fire support.
- Mine detection team.
- Military work dogs.
- Tunnel reconnaissance team.
- Interrogation team.
- Psychological/civil affairs team.

f. **House Search.** Each search party assigned to search an occupied building should consist of at least one local policeman, one protective escort, and one female searcher, if appropriate. The search party must first assemble everyone. The civil police may give the required orders and perform the actual searching. The object of this search is to screen for suspected persons. Detained persons are evacuated quickly—troops can perform this task. Escort parties and transportation must be planned.

g. Village Search. Before conducting search operations in a village, a reconnaissance patrol is sent out to gain information on the village and its inhabitants. The patrol must avoid detection.

(1) Part of the patrol maintains surveillance over the village while the rest returns with information. This detects any changes that may take place before the security element assumes position. Valuable information for the commander includes:

- Size and exact location of the village.
- Fortifications (mantraps, spike traps).
- Warning systems.
- Tunnel systems.
- Where the insurgent lives. He could live in the forest at night and inhabit the village during the day, or he could stay in the village both day and night. He could inhabit one or more huts.
- The number of people that live in the village.

(2) The security and search elements use one of two methods of movement.

(a) If aviation support is available, a quick-strike air assault movement is employed. This type of operation is characterized by speed.

(b) If the elements conduct a dismounted movement, they normally use designated routes. This type of operation is characterized by secure and rapid movement.

(3) A village may be searched as follows:

(a) First method: Assemble inhabitants in a central location (if they appear to be hostile). This method provides maximum control, facilitates a thorough search, denies insurgents an opportunity to conceal evidence, and allows for detailed interrogation. It has the disadvantage of taking the inhabitants away from their dwellings, thus encouraging looting that engenders ill feelings.

(b) Second method: Restrict inhabitants to their homes. This method prohibits movement of civilians, allows them to stay in their dwellings, and discourages looting. The disadvantages are that it makes control and interrogation hard and

gives inhabitants time to conceal evidence in their homes.

(c) Third method: Control head of household. The head of each household is told to remain in front of his house while all others are brought to a central location. During the search, the head of each household accompanies the search team through his house. Looting is reduced, and the head of the household can see that the search team did not steal properly. This is the best method for controlling the population.

(4) Search teams must search thoroughly for insurgent personnel, equipment, escape tunnels, or caches. Cattle pens, wells, haystacks, gardens, fence lines, and cemeteries should be investigated. Search teams are constantly alert for booby traps.

(5) After the house search is completed, the perimeter and area between the security element and village is searched. The two methods are:

(a) One—if the security element has not been discovered, the search element may be formed into sections, each section searching part of the perimeter. If any section flushes an insurgent out of the vegetation or tunnel exit, the security element captures the person, or fires at him, if he attempts to escape.

(b) Two—if the security element has been discovered, it conducts the perimeter search. Part of this element keeps the village isolated, while the rest conducts the search. Such a search could take hours if the terrain is extremely dense. Regardless of the terrain, the search units check possible locations for caches of material or insurgents in hiding.

(6) In areas where tunnels have been reported, the search unit must have a tunnel reconnaissance team attached. This team should consist of volunteers trained for this type of operation. They should have special equipment and abilities such as flashlights or miner helmets, protective masks, and communication with the surface. They should know how to sketch a tunnel system. They should also recover all items of intelligence interest.

Section III. MOVEMENT SECURITY

Movement security can be divided into two categories: security of convoys with strong security detachments, and security of convoys with weak security detachments.

C-8. STRONG CONVOY SECURITY

Special combined-arms teams can be organized and trained to accompany and protect convoys. The security detachment is organized with adequate combat power to suppress insurgent ambushes. Its size and composition depend on the physical characteristics of the area, the ability of the enemy force, and the size and composition of the convoy.

a. The security detachment should have the following subordinate elements:

- (1) A headquarters element to provide command, control, and communication.
- (2) A medical support element.
- (3) An armored element to provide firepower and shock effect.
- (4) A mechanized or motorized infantry element.
- (5) A combat engineer element to make minor repairs to bridges and roads, and to detect and remove mines and obstacles.

b. For large convoys, the security detachment should include field artillery. Ideally, half of the artillery would be placed well forward in the column and half near the rear of the column. The artillery command and control element would move near the security detachment headquarters. This arrangement is the most flexible for providing artillery fire support to elements of the column if an ambush occurs.

c. The combined-arms security detachment is usually interspersed throughout the convoy. This allows various elements to be employed either as a fixing element or attacking element. The formation of a security detachment and its integration into a convoy varies. Therefore, the enemy can be expected to observe convoy patterns and to prepare their ambushes to cope with expected formations. Tanks lead the convoy to gain maximum advantage from their mobility and firepower. If no tanks are available, a heavy vehicle with sandbags placed to protect personnel from mines should lead the convoy.

d. A strong attack element is placed at the rear of the convoy formation. This allows for maximum flexibility in moving forward to attack forces trying to ambush the head or center of the convoy.

e. The enemy force may allow the advance guard to pass the site of the main ambush. Then it blocks the road and attacks the main body and the advance guard separately. At the first sign of an ambush, vehicles try to move out of the kill zone. If they must halt, vehicles stop in place; they do not drive to the roadsides or shoulders, which may be mined.

f. Specified personnel (following the unit SOP) immediately return fire from inside vehicles to cover dismounting personnel. They dismount last under cover of fire by those who dismounted first. Upon dismounting, personnel caught in the kill zone open fire. They immediately assault toward the ambush force and then establish a base of fire. Tanks open fire and maneuver toward the ambush force or to the closest favorable ground.

g. While the engaged element continues its action to protect the convoy, the commander rapidly surveys the situation. He then issues orders to the designated attack elements to begin predrilled offensive maneuvers against the insurgent force. The fire of the engaged security element fixes the ambush force and is coordinated with that of the attacking element.

h. After the insurgent force is defeated or neutralized, security details are posted to cover convoy reorganization. The convoy commander, using the fastest communication available, briefs his commander on the engagement. Captured insurgent personnel are interrogated as to where they planned to reassemble. This information is reported immediately to higher headquarters.

i. After an ambush, patrols may be sent to interrogate and or detain suspected civilians living near or along the routes of approach to the ambush positions.

C-9. WEAK CONVOY SECURITY

The security detachment accompanying a convoy may be too weak for decisive action against an insurgent attack or ambush.

a. The following principles apply when weak convoy security is evident:

(1) Some of the troops are placed well forward in the convoy, and the remainder are placed a short distance to the rear.

(2) Radio contact is maintained between the two groups.

(3) Sharp curves, steep grades, or other areas where slow speeds are needed are reconnoitered by foot troops before passage.

b. At the first sign of ambush, leading vehicles should increase to the safest maximum speed to try to break through the ambush area. Troops from vehicles halted in the ambush area dismount and immediately return fire. Also, troops from vehicles breaking through the ambush dismount and assault the flanks of the ambush position. Both attacking groups must exercise care that they do not fire on each other.

c. If the enemy force allows the main convoy to pass through and then ambushes the rear guard, troops from the main body return and attack the flanks of the ambush position.

Section IV. SUBSURFACE OPERATIONS

This section explains how insurgents can use natural caves or build underground facilities in the course of their operations. Caves and underground facilities can be used for command and control centers, logistics staging areas, hospitals, or fortifications. The larger underground facilities can be quite complex. They can be wired for electricity and communications, and can have pumping stations for supplying air to lower levels. Caves can have many large chambers connected by passageways. Also, tunnel systems can have many large rooms joined by interconnecting tunnels.

C-10. TUNNEL USES

Tunnels can be dug with zigzags and sumps to reduce the effects inside them of small-arms fire, explosives, and gas. Some tunnels, rooms, passageways, or chambers can contain concealed exits to allow insurgents to hide or escape if the complex or cave is penetrated. While other tunnels can be booby-trapped to kill intruders. Tunnels and caves are hard to detect from the air or ground. Their construction can make them impossible to destroy with conventional ammunition. Tunnels can also be dug in the basement of safe houses for use as escape routes if a house is compromised. Tunnel entrances are normally covered by fire from another point on the complex.

a. Insurgents can use tunnels in penetration operations to gain access to restricted areas. In built-up areas, they can infiltrate through sewers, or tunnel to their target from the basement of a nearby building, subway tunnel, or sewer. When insurgents are below the target, they can either build an exit and penetrate the target from below

or fill the tunnel with explosives and destroy the target.

b. Tunnels are used for approach and escape, and for access to caves and underground bunkers for firing positions and for protection against indirect fires. They are also used as a common method for storing food and materials in underground caches. If large enough some tunnel complexes can house underground hospitals and base camps. (See FM 90-10-1 for information on urban tunnels.)

C-11. TUNNEL DETECTION

The first step in detecting or locating tunnels is to reduce a large geographical area of interest to a smaller area of probable locations. This can be accomplished by studying indications of probable tunnel locations.

a. Some indicators that tunnels are being employed by insurgent forces include—

(1) Movement of insurgents in a specific direction after being spotted by aircraft.

(2) Sniper fire occurring from areas where there are no obvious avenues of withdrawal.

(3) Vegetable gardens far from places of habitation.

(4) Operations where insurgents inflict casualties at relatively long range and disappear without making close contact or being detected by friendly forces.

(5) The smell of burning wood or food cooking in an area lacking habitation.

b. Conventional aerial photography produces results if the appearance of the surface and vegetation is changed from the normal. This requires skilled personnel to interpret photographs. In a jungle environment, aerial photography may be prohibited since dense vegetation, such as double or triple canopy jungle, obscures the ground.

c. Once determined that a certain area may contain a tunnel system, several indicators can be helpful in detecting tunnels. Visual inspections often disclose the general area of a tunnel but not its precise location. The key to finding a tunnel system is applying common sense to the situation. A platoon or company should be assigned a small search area, never larger than a 1,000-meter grid square. These small areas are chosen based on intelligence reports or on past actions of the insurgent force. The unit searches every square meter of the area. Some visual indicators usually found include—

(1) Worn places on trees that the insurgent uses as handholds.

(2) A small trail, much like a game trail, through brush into a clump of small trees.

(3) Cut trees, not a sure indicator.

(4) Limbs tied near the tree top to conceal the use of a tunnel from aircraft.

(5) Slight depression in or around a group of small trees.

(6) Air holes—sure indicators.

(7) A lone individual, mainly a female, in the area.

(8) Freshly cooked food with no one attending the site.

(9) Fresh human feces in the area.

d. These are all good indicators. However, they can vary depending on the area. The places to look for indicators are in the corners of hedgerows and trails and streams. The enemy often hides in these places so he can see while not being seen. Also, hiding in these places allows those who finished the camouflage to escape undetected.

The insurgent is aware of the danger of setting a pattern. However, he must have a location that provides him with observation as well as concealment. Soldiers should look for OPs that allow the insurgent to move into or out of an area undetected.

e. Sometimes, the exact location of a tunnel can be obtained by questioning the local populace or PWs who may have occupied, or helped dig, the system. Due to compartmentation, the individual may not be able to locate an entrance or exit unless he has seen or used the completed tunnel.

C-12. TUNNEL SEARCH OPERATIONS

Forces entering an area where a tunnel complex is located requires a methodical approach. Security to the flanks and rear is imperative. The size of the objective area of operations determines the strength of the unit assigned the search mission. The unit, company, or platoon is task-organized for tunnel operations.

a. A company is divided into three elements: security, search, and reserve. (The headquarters element remains with the security element.)

(1) *Security*—one platoon plus headquarters element to cordon search area.

(2) *Search*—one platoon to search the immediate area for tunnels. The search element is subdivided into search and security teams.

(3) *Reserve*—one platoon to assist in cordon and reinforce as needed.

b. A platoon is divided into three elements: security, search, and reserve.

(1) *Security*—one squad plus headquarters element to cordon area.

(2) *Search*—one squad to search the area for tunnels. The search element is subdivided into search and security teams.

(3) *Reserve*—one squad to assist in cordon and reinforce as needed.

c. The techniques of deliberate search are centered around the rifle squad. Each squad is divided into a security and a search team.

d. A slow methodical search is conducted in the area of operations. Once assigned a search area, the squad systematically searches every square meter. The security element moves toward the limits of the search area. Once a hole (tunnel)

is discovered, the security element surrounds the area while the search team prepares to destroy or neutralize the hole (tunnel).

C-13. SPECIAL EQUIPMENT

The platoon or company may require the following special items to perform tunnel operations:

a. **Mine Detector**—used to detect ammunition and weapon caches.

b. **Grenades**—fragmentary, chemical gas, chemical smoke, white phosphorus, and concussion types. Grenades should not be used after friendly forces have entered a tunnel.

c. **Demolitions**—used to destroy tunnel systems. Due to the complexity of charges needed to destroy some tunnel complexes, an engineer team should support the search unit. Also, the large amount of demolitions required for some operations can present unique logistics problems, mainly in a jungle environment. (See FM 90-10-1 for information on the urban environment.)

d. **Air Generator**—used to force smoke into tunnel complex.

e. **Flashlights**—to search tunnels.

f. **Weapons**—Pistols should be used inside tunnels. The pistol has good stopping power and is effective at close range.

g. **Loudspeaker**—used to call the enemy from tunnels.

C-14. FOUR-STEP PROCESS

The destruction of a tunnel is a four-step process, beginning (step 1) with a soldier firing one or two magazines from a rifle into the tunnel entrance. This discourages the enemy from staying close to the entrance.

a. After gaining the attention of the insurgents, they are told to vacate the hole or tunnel, or be killed. They may surrender without a fight, saving not only the efforts of killing but also of excavating the hole or tunnel for weapons and documents.

b. If this fails, breaching operations are used (step 2). A grenade is placed on the entrance cover to gain access. The entrance cover is removed in this manner to reduce the effects of any attached booby traps.

c. Once the entrance cover is destroyed, the following measures are used (depending on the mission):

(1) Insert grenades (step 3), fragmentary or concussion, to kill the insurgents. Ensure that the grenades are cooked-off before throwing them into the hole or tunnel.

(2) Insert a combination of chemical smoke and chemical gas grenades. This serves two purposes: chemical smoke can reveal the locations of other entrances or exits, and chemical gas can force the insurgents to evacuate the hole or tunnel. Captured insurgents are used to find other holes or tunnels.

d. Soldiers then enter to ensure that all weapons and documents are recovered and all enemy (dead or wounded) are removed (step 4). The hole or tunnel is searched for small compartments built to hide weapons and ammunition. If a tunnel complex proves to be extensive with bunkers and large rooms, it is cleared systematically. Bunkers are destroyed or occupied to prevent the enemy from reoccupying them through another tunnel. *Do not clear more bunkers than friendly forces can hold.*

e. Deliberate search techniques emphasize where to look for the enemy (locations that provide him with observation, cover, concealment, and an escape route). When the soldier learns what to look for, any of these indicators are likely to trigger a mental alert that the enemy is not far away. After the tunnel is searched, it is destroyed with explosives.

C-15. NEUTRALIZATION-DEMOLITION PROCEDURES

Neutralization and clearing of tunnels are slow and deliberate procedures, which can be costly in terms of casualties.

a. **Tunnels.** Since each tunnel system differs in size and construction, different quantities and placements of explosives are needed for each type.

(1) The use of block explosives to destroy a tunnel system has a disadvantage: all the explosive power is concentrated at one point. Thus, the destruction is localized, and often portions of the tunnel are unaffected. However, a large (10- to 12-pound) block of explosive tamped against the ceiling may cause an entire tunnel to collapse.

(2) Advantages of block-type explosives are the ease of emplacement, ease of procurement, and feasibility of aerial resupply. Also, block or satchel charges are effective in destroying bunkers, sunken living quarters, underground rooms, and

short tunnels. Cratering charges are also effective for underground rooms.

(3) The shaped charge in tunnel destruction is effective in certain circumstances. A shaped charge placed underground in the middle of a tunnel complex and aimed downward destroys the area around and above the charge. Also, a shaped charge placed in a deep complex and aimed upward results in extensive destruction.

(4) Another effective method of tunnel destruction uses bangalore torpedoes placed

throughout the tunnel length (regardless of depth). The constant length of explosives throughout the tunnel ensures complete destruction. The bangalore (5 feet long) adapts to the twists and turns in tunnels. A disadvantage of bangalore torpedoes is the logistics problems arising from their size and weight. Resupply may be a problem if large quantities are used to destroy a tunnel system.

b. **Bunkers.** Underground living quarters and hideaways, and bunkers can be destroyed by block or satchel charges placed strategically inside the room.

Section V. AMBUSH PATROLS

This section discusses combat patrols with missions to establish and execute ambushes to harass or destroy targets and or capture personnel and equipment. Ambushes reduce the insurgent's overall combat effectiveness. Destruction is the main purpose of an ambush since insurgents killed or captured, and equipment or supplies destroyed or captured, critically affect the insurgent force. The secondary purpose of ambushes is harassment, which diverts insurgents from other missions. A series of successful ambushes cause the insurgent force to be less aggressive and more defensive; to be apprehensive and overly cautious; and to be reluctant to go on patrols and move in convoys or in small groups. (Discussions on ambush planning and fundamentals are omitted from this section. See FM 90-8 for more information.)

C-16. TYPES OF AMBUSHES

The two types of ambushes are point and area. A *point ambush* involves patrol elements deployed to support the attack of a single killing zone. An *area ambush* involves patrol elements deployed as multiple, related, point ambushes.

a. An ambush can be either hasty or deliberate. A hasty ambush is an immediate action drill—an action of a combat patrol with little or no information. When information does not permit detailed planning required for a deliberate ambush, a hasty ambush is planned. Then the ambush patrol plans and prepares to attack the first suitable insurgent force. A deliberate ambush is planned as a specific action against a specific target. Detailed information of the insurgent force is required: size, nature, organization, armament, equipment, route and direction of movement, and times the force will reach or pass certain points on its route. Deliberate ambushes are planned when—

(1) Reliable information is received on the intended movement of a specific force.

(2) Patrols, convoys, carrying parties, or similar forces establish patterns of size, time, and movement to permit detailed planning for the ambush.

b. A unit conducting a combat patrol, before departing, plans and rehearses the ambush of the type of insurgent force it may encounter. It establishes and executes ambushes as opportunities arise.

C-17. POSITIONS

A point ambush, whether independent or part of an area ambush, is positioned along the expected route of approach of the insurgent force. Formation is important, because it determines whether a point ambush can deliver the heavy volume of highly concentrated fire needed to isolate, trap, and destroy the insurgents.

a. The formation to be used is determined by carefully considering possible formations and the advantages and disadvantages of each in relation to terrain; conditions of visibility, forces, weapons, and equipment; ease or difficulty of control; force to be attacked; and the combat situation.

b. Formations are developed for the deployment of point ambushes. The formations are identified with names that correspond to the general pattern formed on the ground by deployment of the attack element. They include:

- Line formation.
- L-formation.
- Z-formation.
- T-formation.
- V-formation.
- Triangle formation.
- Box formation.

(Detailed information on the different point ambush formations, along with advantages and disadvantages to each, is discussed in FM 90-8.)

C-18. AREA AMBUSH FORMATIONS

Area ambush formations consist of two types: multiple point and baited trap. (For more information see FM 90-8.)

a. **Multiple Point.** This area ambush is best suited in terrain where movement is restricted to trails. It provides best results when established as a deliberate ambush. When there is no sufficient intelligence for a deliberate ambush, an area ambush of opportunity may be established. The outlying ambushes can attack insurgents approaching the central kill zone if the insurgent is small. If they are too large for a particular outlying ambush, the insurgents are allowed to continue in order to be attacked in the central kill zone.

b. **Baited Trap.** This area ambush can be varied by using a fixed installation as "bait" to lure relieving or reinforcing insurgent units into the kill zone of one or more of the outlying ambushes. The installation replaces the central kill zone and is attacked. The attack may intend to overcome the installation or may use it as a ruse.

